Author Index

Arndt, B., 82
Arnold, G., 144

Bandy, W., 64
Beattie, A., 108
Boone, D. A., 1, 51, 107, 169
Browning, K., 27
Buchholz, B., 190

Caldwell, R., 82
Capestany, L., 165
Carbone, N. T., 21
Carroll, Á., 14
Chand, P., 30
Comiskey, C., 14
Cronin, A., 27
Crugnola, A., 190

Dallmayer, R., 69
Deora, N., 204
Dib, M., 170
Drew, T., 144
Durham, S., 60

Elavia, U., 204
Esparza, W., 165
Ewins, D., 60

Fatone, S., 82
Fengler, R. K. B., 199
Ferraro, C., 78, 196
Fleischmann, D., 27
Fosnight, T., 184
Frossard, L., 2

Gallo, D., 69
Garbarini, M., 108
Garrison, M. K., 64
Geil, M. D., 40
Guilford, A., 159

Hafner, B. J., 40, 95
Halsne, E., 95
Harder, B., 196
Herriman, L., 27
Holtslag, H. R., 199
Hoskins, R., 184
Houston, V., 108
Hutchins, S. W., 52

Kerr, E., 144
Kirsch, R. F., 89
Kobayashi, T., 52

Lairamore, C., 64
Lambrecht, J. M., 89
Leung, A. K. L., 52
Luo, G., 108

Mah'd, M., 190
Maheswari, U., 204
Manucharian, S. R., 124
Martin, P., 159
Martin, P. E., 114
Matthews, M. J., 155
McLay, R., 27
Michalewicz, B., 27
Mohamed, K., 204
Moyes, K., 144
Mukherjee, S., 159
Murphy, J., 27

Nebeker, B., 27
Neff, J., 27
Nehme, G., 170
Nelson, L. M., 21

Padmanabhan, T. V., 204
Payne, C., 155
Peaco, A., 95
Pearcy, M., 2
Pratt, E., 60
Pulliam, C. L., 89

Ross, C. G., 149
Ryall, N., 14

Sasson, N., 108
Sauve, W., 27
Shore, S., 149
Singh, S. V., 30
Singhal, S., 30
Smith, É., 14
Smith, J. D., 114
Stedje-Larsen, E., 27
Stetler, C., 27
Stevens, P. M., 34
Stevenson, N., 2
Sullivan, J., 2
Sutton, E., 184

Thongpop, C., 108
Tripathi, S., 30

Uden, M., 2

Vaidya, N., 190

Watson, M., 155
Wood, G. I., 69

Yasukawa, A., 159

Subject Index

Activities of daily living, lower limb amputees with portable kinetic recording system, 2
Activity Balance Confidence Scale, transtibial amputees, elevated vacuum suspension *versus*, outcomes, 78
Alignment, optimal, techniques for ankle-foot orthosis, children, 60
Amputation
  flexible cosmetic silicone toe and foot prosthesis, developing countries, case report, 204
  functional outcome measurements, hip disarticulation with helix 3D hip joint, case report, 21
  partial foot, vacuum suspension systems, case study, 82
  simplified fabrication of finger prosthesis, case series, 30
  traumatic, simplified fabrication of finger prosthesis, case series, 30
Amputees
  lower limb, portable kinetic recording system for, ADLs with, 2
  transhumeral, myoelectric prostheses, virtual reality environment for task simulation, 89
  transtibial, elevated vacuum suspension or pin suspension, outcomes, 78
  transtibial, gait characteristic indices, human gait, 108
  transtibial, pressure distribution in prosthetic sockets, DOE and FE analysis, 170
  walking patterns, prosthesis inertia, 114
Amputees
  lower limb, bone mineral density, 14
Ankle angle, orthosis usage, manual muscle testing and, rehabilitation of post-stroke patients, 64
Ankle-foot orthosis
  influence on muscle tone, review, 52
  posterior leaf-spring, permanent deformation, materials and, 144
  techniques to optimally align (tune), children, 60
  usage, manual muscle testing and, rehabilitation of post-stroke patients, 64

Balance, surfing therapy, combat-related polytrauma, 27
Bilateral peromelia, Hanhart syndrome, prosthetic fitting, case report, 196
Bone mineral density, lower limb amputees, 14
Boone, David A., Editorial Comments, 1, 51, 107, 169
Box and Block Test, myoelectric prostheses, virtual reality environment for task simulation, 89
Braces
  brachial plexus palsy, dynamic movement orthosis and shoulder support, pediatric patients, case study, 159
  idiopathic scoliosis, RSC® Brace, quality control of, 69
Brachial plexus palsy, dynamic movement orthosis and shoulder support, pediatric patients, case study, 159
Brain injury, influence of ankle-foot orthosis on muscle tone, review, 52

Carbon fiber, permanent deformation, posterior leaf-spring ankle-foot orthosis, 144
Cerebral palsy, influence of ankle-foot orthosis on muscle tone, review, 52
Combat-related polytrauma, surfing therapy, 27

Deformation, permanent, posterior leaf-spring ankle-foot orthosis, materials and, 144
Design of experiment analysis, transtibial amputees, pressure distribution in prosthetic sockets, FE, 170
Developing countries, flexible cosmetic silicone toe and foot prosthesis, case report, 204
Dual energy X-ray, bone mineral density, lower limb amputees, 14
Durafoam Socket A, transtibial amputees, pressure distribution in prosthetic sockets, DOE and FE analysis, 170
Dynamic elastomeric fabric orthoses, shoulder subluxation, case study, 155
Dynamic movement orthoses, brachial plexus palsy, shoulder support and, pediatric patients, case study, 159

Electromyography, myoelectrical control hand prostheses, independent thumb motion, 190
Elevated vacuum prostheses, functional outcomes, case reports, 184
Evidence-based practice, barriers to implementation, orthotics and prosthetics, 34

Fabric orthoses, dynamic elastomeric, shoulder subluxation, case study, 155
Finger prostheses, simplified fabrication of, case series, 30
Finite element analysis, transtibial amputees, pressure distribution in prosthetic sockets, DOE and, 170
Flatfeet, flexible, hypertonia and, gross motor therapy, pediatric patients, 149
Foot prostheses, partial, vacuum suspension systems, case study, 82
Functional outcome measurements, hip disarticulation with helix 3D hip joint, case report, 21

Gait characteristic indices, human gait, 108
Gait, walking patterns, amputees, prosthesis inertia, 114
Golf, transhumeral recreational prosthesis, 165
Gross motor therapy, hypertonia and flexible flatfeet, pediatric patients, 149

Hand prostheses, myoelectrical control, independent thumb motion, 190
Hanhart syndrome, bilateral peromelia, prosthetic fitting, case report, 196
Helix 3D hip joints, functional outcome measurements, hip disarticulation with, case report, 21
Hip disarticulation, with helix 3D hip joint, functional outcome measurements, case report, 21
Hydrocast transtibial prosthetic sockets, patellar tendon bearing and, comfort levels, 124
Hypotonia, flexible flatfeet and, gross motor therapy, pediatric patients, 149

Idiopathic scoliosis, RSC® Brace, quality control of, 69
Inertia manipulation, walking patterns, amputees, prosthesis inertia, 114

Literature reviews
evidence-based practice, barriers to implementation, orthotics and prosthetics, 34
patient satisfaction with orthotic devices and services, 95
Load sensors, portable kinetic recording system for lower limb amputees, ADLs with, 2
Lower limb amputees
bone mineral density, 14
portable kinetic recording system for, ADLs with, 2
transtibial, elevated vacuum suspension or pin suspension, outcomes, 78
Transtibial, gait characteristic indices, human gait, 108
transtibial, pressure distribution in prosthetic sockets, DOE and FE analysis, 170

Manual muscle testing, orthosis usage, post-stroke patients, rehabilitation and, 64
Moment arms, pediatric patients, techniques to optimally align (tune) ankle-foot orthosis, 60
Motion analysis, orthosis usage, manual muscle testing and, rehabilitation of post-stroke patients, 64
Muscle tone, influence of ankle-foot orthosis, review, 52
Myoelectric prostheses
hand, independent thumb motion, 190
virtual reality environment for task simulation, 89

Orthosis usage, manual muscle testing and, rehabilitation of post-stroke patients, 64
Orthotic devices, services and, patient satisfaction, review, 95
Orthotists, dissemination of state-of-the-science information to orthotic and prosthetic practitioners, 40
Osteoporosis, bone mineral density, lower limb amputees, 14
Outcome assessments
functional, hip disarticulation with helix 3D hip joint, case report, 21
portable kinetic recording system for lower limb amputees, ADLs with, 2
transtibial amputees, elevated vacuum suspension or pin suspension, outcomes, 78
Outcome assessments
functional, elevated vacuum prostheses, case reports, 184

Patellar tendon bearing, hydrocast transtibial prosthetic sockets, comfort levels, 124
Patient satisfaction, orthotic devices and services, review, 95
Pediatric patients
brachial plexus palsy, dynamic movement orthosis and shoulder support, case study, 159
Hanhart syndrome, bilateral peromelia, prosthetic fitting, case report, 196
hypotonia and flexible flatfeet, gross motor therapy, 149
techniques to optimally align (tune) ankle-foot orthosis, 60
Permanent deformation, posterior leaf-spring ankle-foot orthosis, materials and, 144
Phalanges, simplified fabrication of finger prosthesis, case series, 30
Physical therapy, functional outcome measurements, hip disarticulation with helix 3D hip joint, case report, 21
Pin suspension systems, transtibial amputees, elevated vacuum suspension *versus,* outcomes, 78
Poliomyelitis, quadriceps muscle weakness, custom-made orthopedic shoe, 199
Polytrauma, combat-related, surfing therapy, 27
Practitioners, orthotic and prosthetic, dissemination of state-of-the-science information to, 40
Pressure distributions, prosthetic sockets, transtibial amputees, DOE and FE analysis, 170
Prosthesis design, walking patterns, amputees, prosthesis inertia, 114
Prosthesis inertia, amputee walking patterns, 114
Prosthetic foot, transtibial amputees, gait characteristic indices, human gait, 108
Prosthetists, dissemination of state-of-the-science information to orthotic and prosthetic practitioners, 40

Quadriceps muscle, weakness of, custom-made orthopedic shoe, poliomyelitis, 199
Quality control, RSC® Brace, idiopathic scoliosis, 69
Questionnaires
dissemination of state-of-the-science information to orthotic and prosthetic practitioners, 40
orthotic devices and services, patient satisfaction, review, 95

Recreational prosthesis, transhumeral, 165
Rehabilitation
dynamic elastomeric fabric orthoses, shoulder subluxation, case study, 155
manual muscle testing and orthosis usage, post-stroke patients, 64
transtibial amputees, gait characteristic indices, human gait, 108
walking patterns, amputees, prosthesis inertia, 114
RSC® Brace, idiopathic scoliosis, quality control of, 69

Scoliosis, idiopathic, quality control of RSC® Brace, 69
Self-Assessment Examination, 12, 58, 141, 202
Shank kinematics, pediatric patients, techniques to optimally align (tune) ankle-foot orthosis, 60
Shoes, custom-made orthopedic, quadriceps muscle weakness after poliomyelitis, 199
Shoulder orthosis, dynamic movement orthosis, brachial plexus palsy, pediatric patients, case study, 159
Shoulder subluxation
brachial plexus palsy, dynamic movement orthosis and shoulder support, pediatric patients, case study, 159
dynamic elastomeric fabric orthoses, case study, 155
Simulators, myoelectric prostheses, virtual reality environment for task simulation, 89
Socket comfort
patellar tendon bearing, hydrocast transtibial prosthetic sockets, 124
pressure distribution and, transtibial amputees, DOE and FE analysis, 170
Spasticity, influence of ankle-foot orthosis on muscle tone, review, 52
Split finger rings, simplified fabrication of finger prosthesis, case series, 30
Sports, transhumeral recreational prosthesis, 165
Stroke
influence of ankle-foot orthosis on muscle tone, review, 52

manual muscle testing and orthosis usage, rehabilitation of post-stroke patients, 64
Surf medicine, surfing therapy, combat-related polytrauma, 27
Surfing, therapy, combat-related polytrauma, 27
Symmetry, walking patterns, amputees, prosthesis inertia, 114

Task simulation, virtual reality environment, myoelectric prostheses, 89
Thermoplastics, permanent deformation, posterior leaf-spring ankle-foot orthosis, 144
Thumb motion, independent. myoelectrical control hand prostheses, 190
Timed up and go, functional outcome measurements, hip disarticulation with helix 3D hip joint, case report, 21
Toe and foot prosthesis, flexible cosmetic silicone, developing countries, case report, 204
Transhumeral prostheses, recreational, 165
Transtibial amputees
elevated vacuum suspension or pin suspension, outcomes, 78
gait characteristic indices, human gait, 108
pressure distribution in prosthetic sockets, DOE and FE analysis, 170
Traumatic amputations, simplified fabrication of finger prosthesis, case series, 30
Tuning, ankle-foot orthosis, techniques for, children, 60
Two minute walk, functional outcome measurements, hip disarticulation with helix 3D hip joint, case report, 21

Ultra-high molecular weight polyethylene, transtibial amputees, pressure distribution in prosthetic sockets, DOE and FE analysis, 170

Vacuum suspension systems
partial foot prosthesis, case study, 82
transtibial amputees, pin suspension *versus*, outcomes, 78
Virtual reality environments, for task simulation, myoelectric prostheses, 89

Walking
patterns in, amputees, prosthesis inertia, 114
speed of, functional outcome measurements, hip disarticulation with helix 3D hip joint, case report, 21